

# SPARK GAP

**Vol. 34, Issue 11, November 2017 MARC - Serving Central Indiana Communities for thirty-four years**

## On Our MARC...

Many thanks to the MARC member that took part in the annual Goblin Patrol on Halloween night. It was a cool rainy evening to be sitting there watching the bridges to keep our freeways safe from anyone tossing rocks or pumpkins off the bridges over I-65.

For those of you who missed Nov dinner social at Triple Play, you missed out on a lot of good company and good conversation. We had 15 people show up. It was a new location for dinner. I thought the food was good but haven't heard from anyone else that attended.

Just an update on Rusty. He is doing better and hopefully will be at this month's meeting. Bruce had surgery and I haven't heard how he is doing. Please keep him in your prayers. Once I hear how he is doing, I will let everyone know.

Please mark your calendar for December 16th. This is our annual holiday meeting. It will be a pitch in breakfast, we will have a short meeting and then on to the white elephant gift exchange.

Hope everyone has a Happy Thanksgiving. If you are going to brave shopping, please be careful out there!

Hope to see you Saturday. The coffee will be on.

Jacki KI6QOG  
President





*Birthdays for the month of November:*

*WS9H-Rhonda Curtis  
W9TEJ-Ron Koons  
WB9GCV-Jeff James  
K9ICP-Bruce Tisdale  
W9YD-John Wampner  
KD9GWC-Brent Sullivan*

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PART 97 AMMENDED

The Federal Communications Commission has issued a final Report and Order (R&O) dated March 29, 2017, as the adoption of the *Notice of Proposed Rulemaking* from April 23, 2015, (WRC-12 NPRM) Certain sections of Part 97 as it pertains to the Amateur Radio Services have been amended. Specifically:

III. DISCUSSION

5. A. Amateur Radio Use of the 135.7-137.8 kHz and 472-479 kHz Bands  
....and  
6. 1. Secondary Amateur Service Allocation in the 472-479 kHz Band

Briefly: Power is limited to 5W EIRP with a minimal spacing to any power line using Powerline Carrier (PLC) of 1km. (A LINK to PLC follows, below.)

Here are LINKs to the R&O and the UTC in case you plan to operate in these new bands:

**630 AND 2200 METER BANDS AVAILABLE FOR HAM USE**

The FCC announced that the Office of Management and Budget has approved, for 3 years, the information-collection requirement of the Commission's March 29 Report and Order (R&O) that spelled out Amateur Radio service rules for the two new bands - 630 meters and 2200 meters. The R&O in PDF format can be found at, [https://apps.fcc.gov/edocs\\_public/attachmatch/FCC-17-33A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/FCC-17-33A1.pdf) .

Before using either band, stations must notify the Utilities Technology Council (UTC), formerly the Utilities Telecom Council, that they plan to do so, and if UTC does not respond within 30 days, they may commence operation.

The website to notify the UTC is <https://utc.org/plc-database-amateur-notification-process/> .

PLC: I'm sure you all recall the discussion some years ago of the proposed BROADBAND OVER POWER LINES using the SINGLE CONDUCTOR of UNSHIELDED electrical transmission lines to carry, among other things, voice, data, Internet. And the expected interference to and from other signal emitting and receiving devices. We just call that QRM!

Here is a LINK to a Wikipedia article on POWER-LINE COMMUNICATIONS in case anyone wishes to update their knowledge of the pros (few) and cons (many) on the wisdom of using this method of communications. Actually, it is an interesting read.

HERE: [https://en.wikipedia.org/wiki/Power-line\\_communication](https://en.wikipedia.org/wiki/Power-line_communication)

Also; BROADBAND OVER POWER LINES.

HERE: [https://en.wikipedia.org/wiki/Broadband\\_over\\_power\\_lines](https://en.wikipedia.org/wiki/Broadband_over_power_lines)

..... *Chris KQ9Y*

## MARC Volunteer Examiners now part of the Laurel VEC

The Laurel Amateur Radio Club (LARC) Volunteer Examiner Coordinator (VEC) also known as the LARC VEC or Laurel VEC, is one of 14 VECs that have entered into an agreement with the Federal Communications Commission (FCC) to serve as a VEC. The Laurel VEC was established in 1984.

The Laurel VEC is managed by a Chairman who is appointed by the Laurel Amateur Radio Club. The Chairman serves as the point of contact with the FCC and is responsible for all aspects of the Laurel VEC. The Chairman is assisted by Regional Coordinators who recruit and manage teams of VEs within an assigned VEC Region. Teams of Volunteer Examiners are accredited by the Laurel VEC and perform all activities related to amateur radio license exams at the direction of and under the supervision of the Team Leader. All Regional Coordinators and Team Leaders are VEs who are accredited by the Laurel VEC. The Laurel VEC is a member of the National Conference of Volunteer Examiner Coordinators <<http://ncvec.org/>> (NCVEC) but operates as an independent VEC.

<https://www.laurelvec.com/>

The mission of the Laurel VEC is to:

- \* Coordinate amateur radio license exam sessions scheduled and conducted by teams of Volunteer Examiners (VE) accredited by the Laurel VEC
  - \* Provide policies, procedures, and instructions to ensure that all exam-related activities are conducted in accordance with the applicable rules and regulations of the FCC; and
  - \* Maintain the value and integrity of the Volunteer Examiner program.
- Volunteer Examiners provide an invaluable service to the amateur radio community. Since its inception in 1984, the Laurel VEC takes great pride in the fact that it has never charged a fee for its services.

..... *Kevin K9NTZ*

## Goblin Patrol 2017

Beggar's night 2017 was a night for Johnson county Amateur Radio operators to treat the public without encountering any tricks. A dozen MARC members answered the call for service by keeping watch on all the I-65 overpasses through Johnson county. Dave Daily-KB9LOT was net control from the EOC radio room. He was assisted by Brenda Haler-KC9EBL who took notes and stood by as back up net control. Chris Frederick-KQ9Y handled the mapping logistics so everyone had a clear idea on which hams occupied the eight overpasses.

New to the net were Noel Mortier-W9NMM and Bill Jackson-KM6CRL. Ken-KD9ALA and Maryls Barr-KD9BHM found a cozy spot to park and watch their assigned bridge. Bob Jones-KC9NJM, Mike Rose-KC9WLR, Wilson Low-KD9FBC and Steve Brown-N9LC covered the other dark bridges along the I-65 corridor.

The four hour net wrapped up at 10:30pm with no reports of tricksters throwing objects from the bridges. According to one professional truck driver, they appreciate the safety effort in Johnson county. Dave Daily says the county Sheriff's department appreciates the MARC Goblin Patrol as well.

.....*Jack w8ish*



Chris KQ9Y keeps track on the map



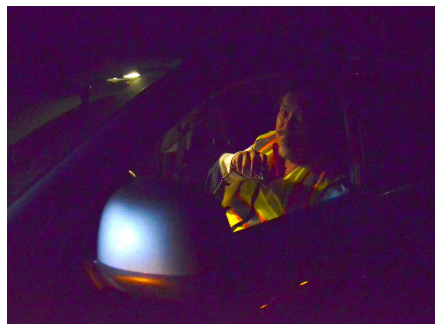
Dave KB9LOT and Brenda KC9EBL



Bill KM6CRL on location



Mike KC9WLR out in the dark



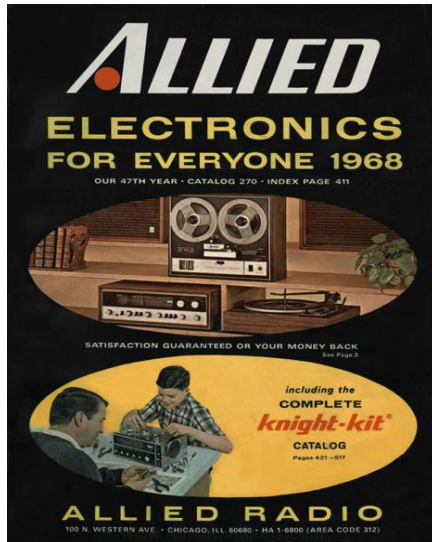
Wilson KD9FBC on night watch



# Catalogs are about possibilities

By Dan Romanchik, KB6NU

When I was a kid, I used to regularly get catalogs, such as the Allied Radio and Lafayette Radio catalogs shown below, and pore over them for hours. Even if I couldn't afford to buy the latest Knight-Kit or Lafayette shortwave radio, I could imagine what it would be like. These catalogs were chock full of possibilities.



I spent many hours poring over the Allied and Lafayette catalogs as a kid. These two are from 1968, when I was 13 years old.

So, you can imagine how I felt when, last Thursday, I found both the Autumn/Winter 2017 DX Engineering catalog and the 2018-2019 Newark Electronics/element14 catalog in my mailbox.

[DX Engineering](#) has really taken the amateur radio world by storm over the last ten years or so. I probably don't have to tell you about that. If you're an active amateur radio operator, I'm sure that you have heard about—and probably ordered from—DX Engineering.

I think that DX Engineering did a very smart thing by investing the money in a print catalog. There's something about browsing a print catalog that is just more satisfying than browsing online.

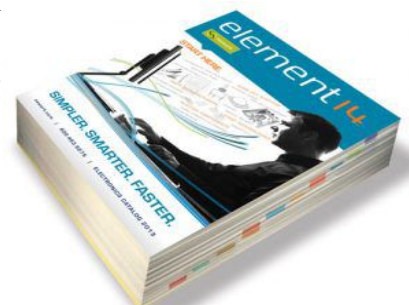
DX Engineering has just about everything you need to have fun with amateur radio. The one glaring omission? They still don't carry my study guides!



The [Newark/element14 2018-2019 catalog](#) is a completely different beast. Amateur radio operators are only a small part of Newark/element14's market, but one nonetheless. They have, for example, attended the Dayton Hamvention for many years.

As such, the catalog is not a "ham radio" catalog, but if you build stuff at all you'll find something of interest in its 1,799 pages. It includes nearly any kind of electronic part that you might need.

The section that might you might want to start with is the "makerspace" section. In this section, you'll find Raspberry Pis, BeagleBones, and even micro:bits. They really have everything,

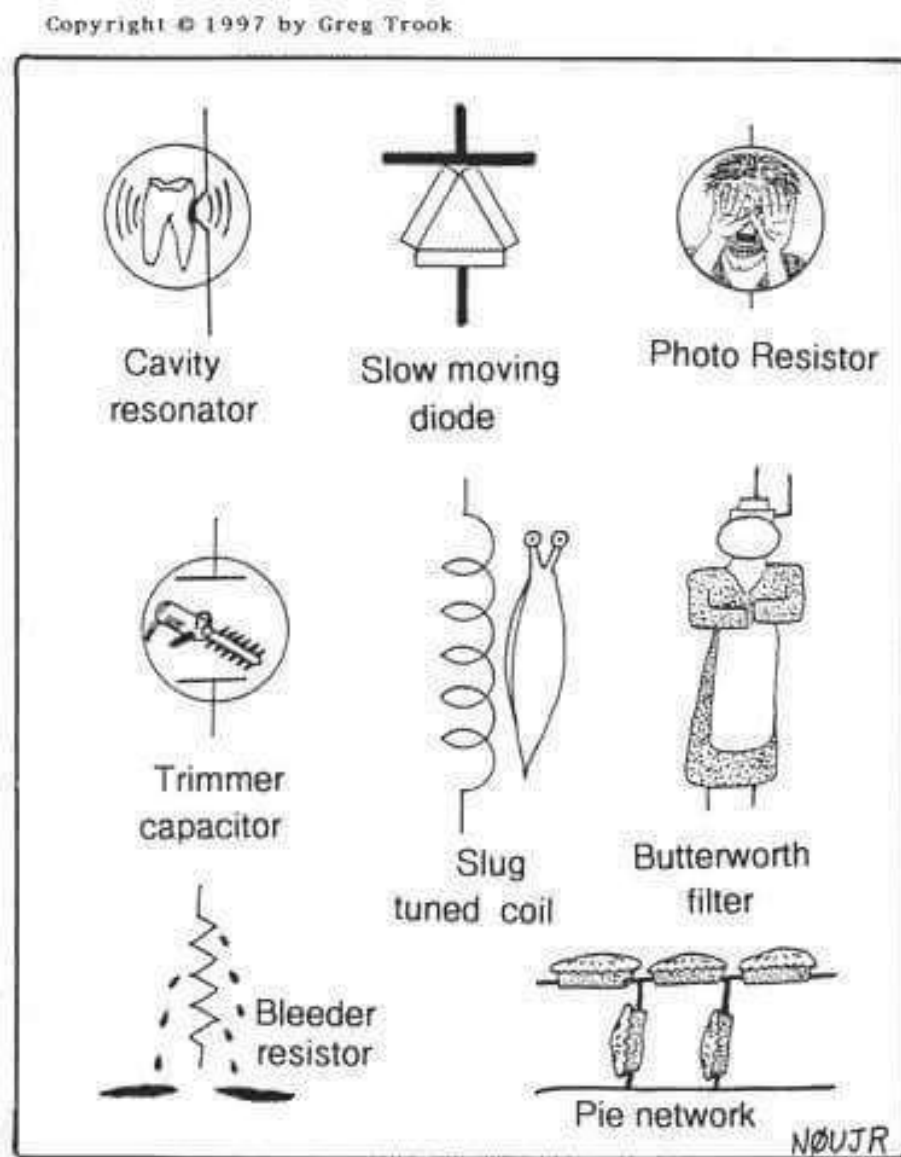


though, including passive and active components, connectors, cable, and enclosures.

Like I say, these catalogs are all about possibilities. You can search each company's website and find the parts they carry quickly and easily, but that experience is just not the same as browsing a print catalog and daydreaming about what you might find there.

So, get your own copies—they're free—and page through them. I'd be surprised if you didn't run across something that you didn't know about before, and it gave you some ideas about your next amateur radio project.

*Dan, KB6NU, is the author of the "No Nonsense" amateur radio license study guides and blogs about amateur radio at KB6NU.Com. When he's not picking nits about the name of our hobby, he teaches ham radio classes and operates CW on the HF bands. You can email him at [cwgeek@kb6nu.com](mailto:cwgeek@kb6nu.com).*



Little known standard electronic symbols.

## Announcing: The ARRL International Grid Chase!

A new and exciting operating event will kick off on January 1, 2018, at 0000 UTC (New Year's Eve in US time zones), when the ARRL International Grid Chase gets under way. The year-long event hopes to build on the success of the highly successful 2016 National Parks on the Air (NPOTA). The objective is to work stations on *any* band (*except* 60 meters) in as many different Maidenhead grid squares as possible, and then upload your log data to ARRL's Logbook of The World (LoTW). Registration is free, and it costs nothing to use LoTW. Many hams are familiar with grid squares from the VHF/UHF and satellite realms, and everyone lives in one. ARRL's VUCC is based on grid squares, and some contests on HF, as well as on VHF and UHF, also use them as a scoring factor.

John Morris, G4ANB, came up with the locator system, which the VHF Working Group adopted in 1980 at a meeting in Maidenhead, England — thus the term “Maidenhead grid square.” The system divvies up the entire globe into 324 fields, each containing 100 grid squares 1° latitude by 2° longitude in size. With 32,400 potential grid squares, it's not likely that anyone will run out of challenges, even though some grid squares are surrounded entirely by water, are in areas that are uninhabited, or are difficult to access.

If you don't know your grid square, David Levine, K2DSL, has an online calculator. Just enter a postal address, ZIP code or a call sign, and his site will tell you the grid square for that location. For example, enter “W1AW” and the site will return “FN31pr.” For the purposes of the ARRL International Grid Chase, though, just the two initial letters and the two numbers that follow (e.g., FN31) are all you need to know.

Once you get active in the chase and start uploading your log data, each new grid square contact confirmed through LoTW will count toward your monthly total. Getting started is simple: Turn on the radio and call CQ or “CQ Grid Chase,” or listen for others doing the same. Make the contact, exchange grid squares, log it, and move on to another. At the end of each month, your totals on the Grid Chase Leader Board will reset to zero, although the system retains all monthly data to determine top finishers in various categories at the end of the year.

*Any* contact you make in 2018 can count for your Chase score; it doesn't have to involve an exchange of grid squares. As long as the other operators participate in LoTW, you'll get credit automatically when they upload their logs. This means that contest contacts will also count, as will contacts with special event stations, or other on-air activity that uses LoTW to confirm contacts.

Some radio amateurs live in sparsely populated grid squares, and if you're one of those, you could find yourself handling a pileup! Expeditions to hard-to-reach or rare grid squares will undoubtedly evolve. You also can travel to one of those grid squares yourself. Some vehicle or hand-held GPS units can be set to display when you are in a particular grid square. Apps are available for smartphones or tablets, such as *Ham Square* for iOS devices or *HamGPS* for Android devices.

There are no restrictions on modes or bands, as long as they are legal. Satellite contacts are valid for the Chase. The event is open to *all* radio amateurs.

Awards

As all contacts are uploaded to LoTW, participants may use their contacts toward other ARRL awards, in addition to the overall monthly and annual Grid Chase recognitions. These other ARRL awards include the grid-based VHF-UHF Century Club (VUCC) and Fred Fish Memorial Award, as well as Worked All States (WAS), WAS Triple Play, DX Century Club (DXCC), and Worked All Continents (WAC).

Complete details of the ARRL International Grid Chase will appear in the December 2017 issue of QST. The digital edition is available on Friday, November 10.

For more information, contact the ARRL Contest Branch, <http://www.arrl.org/contests>

## UP – COMING ACTIVITIES AND HAMFESTS

**11/18/2017 – 0800** MARC Monthly meeting at the Johnson County REMC.

Johnson County REMC 750 International Drive Franklin, IN 46131.

**11/18-19/2017 – 0900 to 1600** Ft. Wayne Hamfest Allen County War Memorial Coliseum and Exposition Center, located at 4000 Parnell Avenue Fort Wayne, IN (\$ 6.00 admission -- \$ 5.00 parking).

**12/16/2017 – 0800** MARC Monthly meeting at the Johnson County REMC.

**Annual Christmas Pitch-in Breakfast**

Johnson County REMC 750 International Drive Franklin, IN 46131.

**01/20/2018 – 0800** MARC Monthly meeting at the Johnson County REMC.

Johnson County REMC 750 International Drive Franklin, IN 46131.

**02/17/2018 – 0800** MARC Monthly meeting at the Johnson County REMC.

Johnson County REMC 750 International Drive Franklin, IN 46131.

**03/17/2018 – 0800** MARC Monthly meeting at the Johnson County REMC.

Johnson County REMC 750 International Drive Franklin, IN 46131.



RFinder WW Repeater Directory

<http://subscribe.rfinder.net>



# MID-SATE AMATEUR RADIO CLUB

The Mid-State Amateur Radio Club meets the **THIRD SATURDAY** of each month  
at the Johnson County REMC 750 International Drive Franklin, IN 46131.

See our website, [www.midstatehams.org](http://www.midstatehams.org), for maps on how to get to our meeting.

Everyone is welcome; you do not have to be a *HAM* to attend our meetings or a member of the club.

**WA9RDF Repeater:**

146.835/  
146.235 MHz  
(151.4 Hz PL Tone)

**Club Officers:**

President: Jacki Frederick – KI6QOG  
Vice President: Ron Schuetz -K9THR  
Secretary: Rhonda Curtis – WS9H  
Treasurer: Marlys Barr – KD9BHM  
Repeater Trustee - Chris Frederick – KQ9Y

**WA9RDF Repeater:**

443.525/  
448.525 MHz  
(151.4 Hz PL Tone)

Weekly Net: Sunday evening 7:00 PM ARES/RACES members and ALL RADIO AMATEURS  
146.835/146.235 MHz (151.4 Hz PL Tone)

The Official Newsletter of the Mid-State Amateur Radio Club

P.O. Box 836  
Franklin, Indiana  
46131

Spark Gap Editor: Robert LaGrange N9SIU

*Please send your articles to my email: [n9siu@yahoo.com](mailto:n9siu@yahoo.com) no later than the 3rd of the month*



*Special thanks to Johnson County REMC for the use of their community room for meetings and testing.*